

Project Name: Development of an education and outreach program in St. Joseph Bay, Florida

Submitting entity: United States Geological Survey, Southeast Ecological Science Center,
7920 NW 71st Street, Gainesville, FL 32653

I. Please select one or more eligible activity the project is classified under:

Restoration and protection of natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast region.

Mitigation of damage to fish, wildlife and natural resources

Implementation of a federally approved marine, coastal or comprehensive conservation management plan, including fisheries monitoring

Workforce development and job creation

Improvements to or on state parks located in coastal areas affected by Deepwater Horizon oil spill

Infrastructure projects benefitting the economy or ecological resources, including port infrastructure

Coastal flood protection and related infrastructure

Planning assistance

Promotion of tourism and seafood in the Gulf Coast region

II. Please provide an executive summary of the project. Describe/quantify the economic (jobs, infrastructure, tourism, etc) and environmental benefits (habitat, quality, knowledge, long-term sustainability, etc).

All species of marine turtles are listed as threatened or endangered world-wide. Because marine turtles are long-distance migrants that often use highly disparate habitats for foraging and breeding, they are exposed to a variety of threats. Nesting females and hatchlings rely on beach habitat, juveniles require shallow-water coastal habitats and foraging adults depend on oceanic habitat for migrating and foraging. Research has suggested that for population recovery of marine turtles the juvenile life-history stage is the most valuable; and it has also indicated that higher rates of mortality are observed within younger turtles than in the older generations of the same species. Therefore, understanding the causes of mortality in juvenile marine turtles is critical to lowering these mortality rates and promoting population recovery.

Because juvenile marine turtles inhabit shallow-water coastal areas which are often dominated by seagrasses, they frequently interact with humans that also enjoy this habitat. Juvenile green turtles in particular are dependent on seagrass habitat for survival. Green turtles are herbivores that feed almost exclusively on seagrasses and marine algae. Seagrasses not only support marine turtles but also provide resources for a large number and great diversity of wildlife, including many sport-fish and commercially valuable invertebrates such as scallops. Between 70 and 90% of commercial and recreational fish spend some portion of their life cycle in seagrass habitat. In 2000, The Florida Department of Environmental Protection (DEP) reported that Florida's seagrass communities supported commercial harvests of fish and shellfish valued at over \$124 billion. Adding the economic value of the nutrient cycling function of seagrasses, and the value of recreational fisheries to this number, the DEP has estimated that each acre of seagrass in Florida has an economic value of approximately \$20,500 per year, which translates into a statewide economic benefit of \$55.4 billion annually. Therefore, protecting seagrass habitat is critical for both turtles and humans. Because both rely heavily on seagrass habitat, interactions between the two are inevitable.

Florida ranks first in the nation in boating activity. In 2003, Florida's shoreline counties contributed an estimated \$402 billion to the Florida economy, 77% of the state's total economy. The Gulf of Mexico, freshwater lakes and rivers, St. Joseph Bay and the Intracoastal Waterway provide excellent fishing opportunities, and recreational fishing is an important source of revenue for Gulf County with both in and out-of-state anglers contributing to the local economy. Sport and shell-fishing are the most active forms of tourism throughout the year. Turtles may be directly affected by human use of seagrass habitat. Because seagrasses grow in relatively shallow water, turtles foraging in this habitat are susceptible to boat strikes and propeller injuries. Sea turtle coloration provides camouflage within the habitat which makes it difficult to see turtles when boaters are moving at high speeds therefore boat strikes are one of the most common causes of mortality of juvenile turtles in Florida. Another source of injury to juvenile turtles is capture by hook-and-line however the frequency and severity of these injuries are not well known.

Humans and sea turtles will continue to interact, particularly in shallow-water, nearshore habitats. The economic benefits of sport-fishing, scalloping and other recreational and commercial activities are critical to coastal counties therefore understanding how these activities impact threatened and endangered species is imperative. Through this knowledge, and through continued education of Bay users, these activities can be undertaken in ways that result in the lowest rate of mortality and injury to juvenile turtles.

Economic and Environmental Benefits

Economic

This project will require employing 5 biologists or biological technicians, including an outreach/education coordinator, for three years.

These personnel will require housing which means at least one local residence will be rented for the three-year duration of the project.

This project will make use of vehicles that require frequent maintenance and purchase of supplies such as gasoline, office supplies, printing etc.. We currently use local, Port St. Joe businesses for this work and would continue to use these businesses for this project.

The objectives of this project aim to allow for continued development of the tourism economy in Gulf County without harming marine wildlife. Many tourists visiting the Peninsula

do so to observe the abundant natural resources that inhabit Gulf County, particularly marine wildlife such as sea turtles. Being able to support a growing tourism economy without damaging the wildlife these tourists are coming to see would be a great benefit to Gulf County.

Environmental

This project would address gaps in our understanding of the relationship between human activities in St. Joseph Bay and sea turtle injury and mortality. Sea grass habitat provides the foundation for most marine species; it serves as a nursery ground for sport-fish, sharks, invertebrates, manatees and turtles. In addition, it filters water and allows for a clean-water environment. By reducing impacts to seagrass habitat, multiple species will benefit. This project would also help lower mortality rates in juvenile sea turtles which would contribute to population recovery of these species

METHODS

We propose to partner with various users of St. Joseph Bay including fishing guides and sport-fishing groups to gather information on the number and types of interactions that occur in the Bay between users and turtles. We will develop and distribute a datasheet that we will request users complete whenever they interact with a turtle. These data would provide numbers of interactions but also details such as time of year, time of day, types of interactions, location within the Bay and turtle species (if possible). In addition, if turtles are brought onboard for any reason, we will request that people contact us immediately so we can retrieve the turtle, determine if it needs rehabilitation and transport it to the rehabilitation center if necessary or tag and release the turtle.

In addition, we will conduct weekly surveys of the St. Joseph Bay shoreline to locate stranded turtles. Data gathered on any turtles that are observed will be recorded on the state of Florida's (Florida Fish and Wildlife Conservation Commission) stranding report. In addition, we will record external injuries and any abnormalities.

Finally we will use various methods (such as brochures, flyers, and newspaper advertisements) to request all users of the Bay to contact us if they experience any interactions with sea turtles while in St. Joseph Bay.

Partnering with Bay users has many benefits to both groups. Our goal with this program is not to identify blame or reduce human use of the Bay. These activities are extremely valuable to Gulf County and our research program has benefitted greatly from our partnerships with local groups. Our goal is to ensure that continued use of the Bay does not reduce the resources many people are using the Bay for, specifically seagrass habitat, fish, invertebrates and sea turtles. This project provides invaluable information for our sea turtle research program. Sport-fisherman are frequent users of the Bay and can contribute information only available through intimate knowledge of the habitat. Our access to turtles may increase and our knowledge of the distribution of turtles throughout the bay will benefit. The Bay users will also benefit by learning more about how to best respond to turtle interactions. For example, if a sport-fisherman captures a turtle on hook-and-line, is it better to cut the line far from the turtle, reel the turtle in and try to remove the hook, cut the line as close to the turtle as possible, etc? Small changes in behavior by these users may have significant impacts to juvenile sea turtles in St. Joseph Bay.

III. Please provide a cost summary/budget. Detail and matching/cooperative funds available for use, and any cooperative support from governmental or other agencies.

Matching funds through the University of Florida have already been requested from the National Fish and Wildlife Federation and State of Florida Marine Turtle Grant.

In-kind support is available from the University of Florida, the Department of Defense and the US Fish and Wildlife Service in the form of personnel support, use of equipment and supplies, and administrative support.

We are requesting \$600,000 for this 3 year period. This includes:

Salary = \$288,000 for a lead biologist, outreach coordinator, 1 assistant biologist, and 2 interns

Equipment = \$1,000 for a computer.

Supplies = \$111,000 for all field and office supplies including fuel, housing, and travel

USGS Overhead (50%) = \$200,000

IV. Please provide a timeline for project completion. Explain the technical and environmental feasibility (including any permitting considerations) of the project.

Project duration: 3 years starting immediately after release of funds

V. Please provide the qualifications of the submitting entity, the financial feasibility/sustainability, and the economic feasibility and sustainability of the project (probability of success, etc).

This project would be overseen by Dr. Margaret Lamont at the USGS Southeast Ecological Science Center (SESC). Dr. Lamont has been conducting research and monitoring on marine turtles on the St. Joseph Peninsula since 1995 and in St. Joseph Bay since 2001. At the USGS-SESC she has the support of a full administrative team, a Center Director and Supervisory Biologist. Dr. Lamont currently oversees a team of 7 technicians and interns that conducts flipper tagging on the St. Joseph Peninsula each summer and within St. Joseph Bay year-round. In addition, since 2010 she has overseen the St. Joseph Peninsula Turtle Patrol which consists of 10-20 volunteers who conduct morning sea turtle monitoring and education activities on the Peninsula, so she is fully aware of the logistics necessary to undertake this type of proposed project.

The long-term research and monitoring that has been conducted on the St. Joseph Peninsula and within St. Joseph Bay demonstrates the feasibility and sustainability of this project. This proposed project will provide valuable support to this already ongoing,

long-term conservation program that has and will continue to supply environmental research, monitoring and education to the growing number of tourists visiting Gulf County.

VI. Please provide the anticipated results of the project, and whether it is included in the City of Port St. Joe, City of Wewahitchka, or Gulf County Comprehensive and Mitigation Plan.

This project directly addresses goals and objectives defined in Chapters 5 and 6 of the Gulf County Comprehensive Plan. It also supports the goals and objectives of Chapter 7 and Chapter 11 of the Comprehensive Plan by ensuring continued public use of coastal habitats and by creating jobs and supporting local businesses. By providing these education and outreach opportunities to tourists and residents of Gulf County, this project will ensure continued success of the growing tourism economy in the county.

Submitted by: Margaret Lamont

Signature 

Date: 2/18/13

Company Name: United States Geological Survey

Address: 7920 NW 71st Street

Address: Gainesville, FL 32653

Telephone Number: 352-209-4306

Email address (if applicable): mlamont@usgs.gov

BOARD OF COUNTY COMMISSIONERS
GULF COUNTY, FLORIDA

RESTORE ACT COMMITTEE (R.A.C.)

1000 CECIL G. COSTIN SR. BLVD., ROOM 312, PORT ST. JOE, FLORIDA 32456
PHONE (850)229-6144 • FAX (850) 229-9252 • EMAIL: tkopinsky@gulfcounty-fl.gov

**PUBLIC RECORDS POLICY AND PUBLIC ACCESS ACKNOWLEDGMENT FOR
GULF COUNTY RESTORE ACT APPLICANTS**

I, Margaret Lamont the undersigned authority and/or representative of the entity USGS SE Ecological Science Center and or the individual who has submitted the Gulf County RESTORE Act Proposal/Pre-Proposal titled Development of an education and outreach program in St. Joseph Bay, Florida hereby acknowledge, consent and accept the following representations that coincide with my/our submission for consideration, evaluation and possible recommendation and approval by the Gulf County Board of County Commissioners for funding from the RESTORE Act distribution that strictly complies with the guidelines and regulations set forth under the Restoration and Ecosystems Sustainability, Tourist Opportunities and Revived Economies of the Gulf Coast States Act of 2012:

1. I/We am the authorized representative of the application/pre-proposal referenced above.
2. I/We have thoroughly reviewed and familiarized myself and/or my entity on which I have submitted the application/pre-proposal on behalf of with the entirety of the Gulf County Public Records policy.
3. I/We have thoroughly reviewed and familiarized myself and/or my entity on which I have submitted the application/pre-proposal on behalf of with the entirety of the Florida Statute Chapter 119 which controls and permits public access to information.
4. I/We hereby acknowledge, consent and agree to the controlling policies and statutes above as well as the free and open exchange of any and all submissions provided hereunder this application/pre-proposal and all information exchanged hereafter including but not limited to further amendments to these proposals as well as surveys, studies, research, data production, books, drawings, property records, work papers, county owner lists, files, forms, reports, accounts, documents, manuals, handbooks, instructions, printouts relating in any manner for the production of the application. In addition, all papers, notes, data, reference material, documentation, programs, printouts, and all other media and forms of expression that in any way include, incorporate or reflect any confidential information of what ultimately shall become the Gulf County plans for use and application of the RESTORE Act funding.
5. I/We acknowledge, agree and fully consent to cooperate with the appointed Gulf County RESTORE ACT committee, county officials and staff as a continuing obligation and condition of final review for this RESTORE Act application/pre-proposal.
6. I/We have submitted this acknowledgment to Gulf County RESTORE Act Committee and the Gulf County Board of County Commissioners for the purpose and intent of receiving an evaluation, review and possible recommendations for anticipated funding from the Restoration and Ecosystems Sustainability, Tourist Opportunities and Revived Economies of the Gulf Coast States Act of 2012.


Signature of RESTORE Act Applicant

Date: 2/25/13

Margaret Lamont
Printed Name